Erasmus project: EUROPEAN MASTER DEGREE IN LOGISTICS

<u>DESCRIPTION ERASMUS: ERASMUS CURRICULUM DEVELOPMENT PROJECTS</u>

BACKGROUND

Logistics is a Knowledge area of great importance for the whole Europe, even more when the international aspects inside and outside Europe are considered, with a rich development in training and research aspects on a world-wide scale. This project focuses on the development of a common European Postgraduate Logistic Program at the Master level. Until now, different proposals of logistics programs of postgraduates have been introduced and developed in different European countries. In fact, both the University of Ljubljana and the UPCT have established programs for PhD in Logistics. Also al LiTH there is a doctoral programme in Production Economics strongly featuring supply chains, multi-stage, multi-level production systems and other core elements of Logistics. Despite the great effort in the university environment there is still an international need to develop common programs and teaching criteria in Logistics. This aspect has been addressed by the European Logistics Association through the training survey the have carried out in Europe.

The Universities involved in this project have been collaborating during the last years, with the main goal to develop common interest points like supply chain management, inventory modelling, etc. They are also involved in the development of e-learning bu designing and testing the International Logistics Management Game. To design and then expand this proposal to other European Universities with the purpose of benefiting different groups in Europe is one of the main goals of this proposal. Even the student participating in the project will be also exposed to work with different European Countries. The four Universities are working together for the last three years, In March 2000, the First International Logistics Management Game Conference was launched in Cartagena, using software developed by staff from LiTH, afterwards, the Second and Third Conferences (2001-2002) have been organised by the University of Ljubljana.

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OBJETIVES

The goal of the present project is to develop a common postgraduate that satisfies the local and general requirements of the Universities involved. The program will be discussed with the European Logistic Association, with the purpose of obtaining the "professional accreditation" of this professional international association, plus the four Universities involved in the project. It is important to take into account that the main goal of the present project is to analyse and design a Program in Logistic Systems. At the present time the following modules have been discussed and proposed:

- Logistics management, and the background and theory of supply chain management
- Logistics costs
- Transportation management
- Resource management, human resource management
- Aspects of economic evaluation methodology

Nevertheless the project partners have been discussing about the necessity to have a training structure that includes "compulsory" modules plus "optional" ones, witch reflect the specific aspects of each country. The analysis of the actual training proposals of the different European Universities to identify the essential elements of the training and the specificity of the training are points of the general objective of this proposal. The university degree will be recognised by the four participating universities in this proposal.

The design will be made under the guidelines of Bologna Convention. The real designing objective is to identifying the guidelines which keep at the same common level, identifying the specificity or particularity of each training programme offered. In this way, keeping to the plan defined by the process, it could well be implemented in other Universities. As part of the pedagogical material it will be use of modern information technology in an extended way.

INNOVATION

The following aspects are innovations included in this proposal:

- To have a Master Degree Agreement between for Universities in four European Countries together
- To have a professional association accrediting the Master Degree
- To be developed under the Bolonia Convention
- To have "core" modules plus "optional" modules
- Extensive use of TIC, through:
    - WEB bases exercises
    - Business games
    - Distance learning

PEDAGOGICAL AND DICTATICAL APRROACHES

After the different meetings and the work done by the participating universities until now, it seems quite clear the use of the different pedagogical approaches:

- Traditional lectures will be used for the presentation of basic concepts
- Small group seminars and tutorials
- "Case study analysis" for the students to work in group
- Business game, focusing on overall logistics aspects, together with other business concepts.
- Economic evaluation methodology for the consequences of logistic decisions
- Practical projects alone or in groups.

The pedagogical approach will be supplemented with TIC support. For the aim it will be develop:

- Computer based learning material
- Design WEB based exercises
- Distance learning modules

Each of the four Universities will offer for the project the use of a computer lab, with internet connectivity that allows the students to work together. Furthermore, the project will implement in each of them a videoconference application that allows the students to have distance learning modules from other of the partners involved in the project.

Also the consortium will develop pedagogical material together, and solutions to be used in a common way. As an example could be the students of one University playing against the others, in the frame provided by a Business Game, under the philosophy of internet.

TARGET GROUPS

The people interested in the present proposal is a large group with different interest as:

- Firstly, the Industrial Engineering and Management students, MSc in Logistics or similar. In this case, we will try to develop a common knowledge for all European Universities, allowing an excellent training of these future professionals.

- The professional associations in logistics, based on the European Logistic Association. It has been tested the training gap in logistics, related to the differences between countries or even between universities in the same country, which implies a great difficulty for establishing uniform criteria with consequences for what this fact means to the companies.

Other beneficiaries from the project will be the personnel working on logistic systems, they will have a common training reference among all the countries. At the present time, we have not developed any diffusion procedure, nevertheless, the UPCT has developed a WEB on Logistic, in which could be incorporated, also in other professionals circles in Spain. Other partners have also shown their interest to promote the project in their countries.

The direct beneficiaries are the following:

- For UPCT
- For Linköping Institute of Techonology
- For Ljubljana University
- For Cardiff University

However, once the program is designed, it will also be offered to other Universities, for example to implement a postgraduate program in logistics systems, the use of material and software,…